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EXAMINER	
PRENDERGAST, ROBERTA D	
ART UNIT	**PAPER NUMBER**
2671	

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/727,659	JANG ET AL.	
	Examiner	Art Unit	
	Roberta Prendergast	2671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-23 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-23 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 05 December 2003 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7/20/05; 9/2/04; 9/30/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 2(element 270), Fig. 3(element SVG and MPEG-7). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 16, and 18 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Tabatabai et al. U.S. Patent Application No. 2003/0031260.

Referring to claim 1, Tabatabai et al. teaches a method of generating an input file using a meta language regarding graphics data compression comprising making an extensible markup language (XML) schema that defines at least a compression node describing object data to be compressed, and parameters used to data compression (Fig. 4a), making style sheets which support conversion of an input XML file into a file, which is to be input to a data compression encoder, based on the XML schema (Fig. 8), and generating a file, which is to be input to the data compression encoder, by parsing the input XML file based on the XML schema and the style sheets (page 1, paragraph [0010]; page 2, paragraphs [0011], [0014], [0015], and [0017]; page 3, paragraph [0033], i.e. it is understood that an input XMT-Ω file is converted to an XML Schema and an XML style sheet and the schema and style sheet are parsed to generate an XMT-A file before being input to the MPEG-4 data compression encoder).

Referring to claim 16, the rationale for claim 1 is incorporated herein, Tabatabai et al. teaches the method of claim 1 and further teaches a computer-readable recording medium for recording a program executing the method of claim 1 in a computer (page 9, paragraphs [0062]-[0063]).

Referring to claim 18, the rationale for claim 1 is incorporated herein, Tabatabai et al. teaches the method of claim 1 and further teaches a system for performing the method of claim 1 (Fig. 9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-15, 17, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabatabai et al. U.S. Patent Application No. 2003/0031260 in view of KIM et al., "Study Text of ISO/IEC 14496-1:2001/FDAM2", MPEG-W Systems, March 2002, pages 1-91.

Referring to claim 2, the rationale for claim 1 is incorporated herein, Tabatabai et al. teaches the method of claim 1 but does not specifically teach wherein the XML schema further comprises at least EncodingHints specifying the location of a file in which the object data to be compressed is stored.

Kim et al. teaches wherein the XML schema further comprises specifying the location of a file in which the object data to be compressed is stored (page 31, sections 15.12 XMT-A Elementary Stream Data and 15.12.1 <StreamSource>, i.e. the location of the object data to be compressed is the location of the stream source data).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Tabatabai et al. with the teachings of Kim et al. thereby providing an XMT framework for representing MPEG-4 scene description using a textual syntax that allows content authors to exchange their content with other authors, tools, or service providers, and facilitates interoperability with both Extensible 3D (X3D), SMIL, and MPEG-7 using the International ISO/IEC MPEG standards (page 2, sections 14 Overview of the XMT Framework, 14.1 Interoperability of XMT, and 14.2 Two_Teir Architecture: XMT-A and XMT-Ω Formats).

Referring to claim 3, the rationale for claim 1 is incorporated herein, Tabatabai et al. teaches the method of claim 1 but does not specifically teach wherein the parameters comprise at least one of a parameter for keyframe-based animation data regarding vertex coordinates of the object, a parameter for rotation information of the object, a parameter for position information of the object to be compressed, and a parameter for three-dimensional (3D) mesh information to be compressed.

Kim et al. teaches wherein the parameters comprise at least one of a parameter for keyframe-based animation data regarding vertex coordinates of the object (page 6, section 15.5.3 Field, Table 2-type values, last 4 rows; page 36, section 15.14.6.1 Description), a parameter for rotation information of the object (page 6, section 15.5.3

Field, Table 2-type values, rows 14 and 15; page 45, section 16.2.3 Drag Animation; page 54, section 16.6.1.1 <transformation>, lines 3 and 12-15; page 82, section 16.20.1.2 Angles), a parameter for position information of the object to be compressed (page 6, section 15.5.3 Field, 5th and 6th lines; page 54, section 16.6.1.1 <transformation>, lines 2 and 12-15; page 84, rows 45, and 51-54), and a parameter for three-dimensional (3D) mesh information to be compressed (page 61, section 16.6.19 <mesh>; page 84, rows 8-11, and 19-24).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Tabatabai et al. with the teachings of Kim et al. thereby providing an XMT framework for representing MPEG-4 scene description using a textual syntax that allows content authors to exchange their content with other authors, tools, or service providers, and facilitates interoperability with both Extensible 3D (X3D), SMIL, and MPEG-7 using the International ISO/IEC MPEG standards (page 2, sections 14 Overview of the XMT Framework, 14.1 Interoperability of XMT, and 14.2 Two-Tier Architecture: XMT-A and XMT-Ω Formats).

Referring to claim 4, claim 4 recites the limitations of claims 2 and 3 and therefore the rejections of claims 2 and 3 are incorporated herein.

Referring to claim 5, the rationale for claims 1 and 2 are incorporated herein, Tabatabai et al., as modified by Kim et al., teaches a method of generating an input file using a meta language regarding graphics data compression comprising making an XMT schema which defines a compression node, which defines object data to be compressed, parameters for data compression, and BitWrapperEncodingHints which at

least specifies the location of a file in which the object data to be compressed is stored (see Kim et al.: page 31, sections 15.12 XMT-A Elementary Stream Data and 15.12.1 <StreamSource>, i.e. the location of the object data to be compressed is the location of the stream source data), making an XMT2BIFS style sheet which supports conversion of an XMT input file into an scene file (page 1, paragraph [0009]-[0010]; page 2, paragraph [0011], i.e. the XMT Schema and Style Sheets are used to generate an MPEG-4 scene description file) and an XMT2MUX style sheet which supports conversion of the XMT input file into a mux file (page 2, paragraph [0012]-[0013], i.e. the XMT Schema and Style Sheets are used to generate MPEG-7 object descriptor files), based on the XMT schema, and generating the scene file and the mux file by parsing the input XMT file using the XMT schema and the XMT2BIFS and XMT2MUX style sheets (page 2, paragraph [0017]; page 3, paragraphs [0030]-[0033]; page 4, paragraphs [0036]-[0039]; pages 6-7, paragraph [0052], i.e. an XMT-A or XMT-Ω file is input and then a scene descriptor/MPEG-4 file and initial object descriptor/MPEG-7 files are generated).

Referring to claim 6, the rationale for claim 5 is incorporated herein, Tabatabai et al. teaches the method of claim 5 but does not specifically teach wherein the compression node comprises a node field containing the object data to be compressed, a buffer field which is not used together with an url field at the same time and temporarily stores a bitstream defined in the compression node using an in-band scenario; and the url field which is not used together with the buffer field at the same

time and links information regarding the bitstream defined in the compression node using an out-band scenario.

Kim et al. teaches this limitation (page 15, sections 15.8.2 <Object Descriptor> and 15.8.2.1, i.e. if the URL_Flag bit is set to 1 then the url field links information using an out-band scenario, if the URL_Flag bit is set to 0 then the <Descr> buffer field temporarily stores the elementary stream descriptors using an in-band scenario).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Tabatabai et al. with the teachings of Kim et al. to provide a url field to be used to point to a remote/out-band source for the stream data or a buffer to be used for an in-band scenario thereby providing an XMT framework for representing MPEG-4 scene description using a textual syntax that allows content authors to exchange their content with other authors, tools, or service providers, and facilitates interoperability with both Extensible 3D (X3D), SMIL, and MPEG-7 using the International ISO/IEC MPEG standards (page 2, sections 14 Overview of the XMT Framework, 14.1 Interoperability of XMT, and 14.2 Two_Teir Architecture: XMT-A and XMT-Ω Formats).

Referring to claim 7, the rationale for claim 6 is incorporated herein, Tabatabai et al. teaches the method of claim 6 wherein the compression node further comprises a type field specifying the type of node compression scheme (Fig. 8(element 814); page 8, paragraph [0060], i.e. SMIL XML/XMT DOM is compressed to an MPEG-7 type format).

Referring to claim 8, claim 8 recites the limitations of claims 5 and 3 and therefore the rejections of claims 5 and 3 are incorporated herein.

Referring to claim 9, the rationale for claim 1 is incorporated herein, Tabatabai et al. teaches the method of claim 1 but does not specifically teach wherein the BitWrapperEncodingHints further specifies an object descriptor ID that is the same as a URL ID, of the compression node, the name of a file transmitting a compressed bitstream, and the type of a stream format, the file name being described in the mux file.

Kim et al. teaches this limitation (page 82, section 16.19.2 An example to show BIFS, OD, and media stream mapping, lines 3-4, i.e. this example is in XMT-Ω format; pages 85-86, section 17.1 MPEG-7, final 8 lines on page 85 and first 19 lines on page 86, i.e. source images Image1, Image2, and Image3 are object descriptor id strings located in both the XMT-Ω file and the MPEG-7 file indicating that the object descriptor ID of the MPEG-7 file would also be identical to the URL ID of the XMT-Ω in the case where the source file was an out-band/remote file instead of an in-band source file).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Tabatabai et al. with the teachings of Kim et al. thereby providing an XMT framework for representing MPEG-4 scene description using a textual syntax that allows content authors to exchange their content with other authors, tools, or service providers, and facilitates interoperability with both Extensible 3D (X3D), SMIL, and MPEG-7 using the International ISO/IEC MPEG standards (page 2, sections 14 Overview of the XMT Framework, 14.1 Interoperability of XMT, and 14.2 Two_Teir Architecture: XMT-A and XMT-Ω Formats).

Referring to claim 10, claim 10 recites the limitations of claims 5 and 6, wherein the URL_Flag bit is set to 0 then the <Descr> buffer field temporarily stores the elementary stream descriptors using an in-band scenario, and therefore the rejections of claims 5 and 6 are incorporated herein.

Referring to claim 11, claim 11 recites the limitations of claims 5 and 6, wherein the URL_Flag bit is set to 0 then the <Descr> buffer field temporarily stores the elementary stream descriptors using an in-band scenario, and therefore the rejections of claims 5 and 6 are incorporated herein.

Referring to claim 12, claim 12 recites the limitations of claims 5 and 6, wherein the URL_Flag bit is set to 1 then the url field links information using an out-band scenario, and therefore the rejections of claims 5 and 6 are incorporated herein.

Referring to claim 13, the rationale for claim 12 is incorporated herein, Tabatabai et al. teaches the method of claim 12 but does not specifically teach wherein the input XMT file further comprises an ObjectDescriptorUpdate which defines an object descriptor ID that is the same as the object descriptor ID specified in the BitWrapperEncodingHints, and the name of a mux file to be generated from the parsing of the input XMT file, wherein the scene file further specifies an object descriptor ID that is the same as the object descriptor ID specified in the BitWrapperEncodingHints, and the name of the mux file.

Kim et al. teaches this limitation (page 15, section 15.8.1 Overview; pages 28-29, sections 15.8.17.1, 15.8.19; page 89, section 17.2.3 <PublicationHints>, 1st paragraph, i.e. each object descriptor mux file is linked to the scene file by an ObjectDescriptorId

and the scene file contains a list of the ObjectDescriptorId's of each linked object description file).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Tabatabai et al. with the teachings of Kim et al. thereby providing an XMT framework for representing MPEG-4 scene description using a textual syntax that allows content authors to exchange their content with other authors, tools, or service providers, and facilitates interoperability with both Extensible 3D (X3D), SMIL, and MPEG-7 using the International ISO/IEC MPEG standards (page 2, sections 14 Overview of the XMT Framework, 14.1 Interoperability of XMT, and 14.2 Two_Teir Architecture: XMT-A and XMT-Ω Formats).

Referring to claim 14, claim 14 recites the limitations of claims 5, 12 and 13and therefore the rejections of claims 5, 12 and 13 are incorporated herein.

Referring to claim 15, claim 15 recites the limitations of claims 13 and 14 and therefore the rejections of claims 13 and 14 are incorporated herein.

Referring to claim 17, the rationale for claim 5 is incorporated herein, Tabatabai et al. teaches the method of claim 1 and further teaches a computer-readable recording medium for recording a program executing the method of claim 5 in a computer (page 9, paragraphs [0062]-[0063]).

Referring to claim 19, claim 19 recites the limitations of claims 18 and 3 and therefore the rejections of claims 18 and 3 are incorporated herein.

Referring to claim 20, the rationale for claim 5 is incorporated herein, Tabatabai et al. teaches the method of claim 5 and further teaches a system for performing the method of claim 1 (Fig. 9).

Referring to claim 21, claim 21 recites the limitations of claims 6 and 20 and therefore the rejections of claims 6 and 20 are incorporated herein.

Referring to claim 22, claim 22 recites the limitations of claims 20 and 3 and therefore the rejections of claims 20 and 3 are incorporated herein.

Referring to claim 23, claim 23 recites the limitations of claims 9 and 20 and therefore the rejections of claims 9 and 20 are incorporated herein.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents and are cited to further show the state of the art with respect to XML, XMT and MPEG encoding.

Malladi et al. U.S. Patent No. 5912676

Huang et al. U.S. Patent No. 6593936

Basso et al. U.S. Patent No. 6751623

Bourges-Sevier et al. U.S. Patent No. 6693645

McConnell et al. U.S. Patent No. 6996571

Sato et al. U.S. Patent Application No. 2001/0010706

Gentric U.S. Patent Application No. 2002/0009151

Notoya et al. U.S. Patent Application No. 2002/0071654

Bourges-Sevier U.S. Patent Application No. 2002/0083032

Tabatabai et al. U.S. Patent Application No. 2002/0085028

Yokoyama U.S. Patent Application No. 2003/0103073

Luken U.S. Patent Application No. 2004/0109502

Luken et al. U.S. Patent Application No. 2004/0111677

The following non-patent literature is cited to further show the state of the art with respect to XML, XMT and MPEG encoding.

Cheong et al., "Development of an interactive contents authoring system for MPEG-4", Proceedings of Workshop and Exhibition on MPEG-4, 18-20 June 2001, pages 17-20.

Hunter, J., "An overview of the MPEG-7 description definition language (DDL)", IEEE Transactions on Circuits and Systems for Video Technology, Volume 11, Issue 6, June 2001, pages 765 – 772.

Kim, T. and Fishwick, P. A., "A 3D XML-based customized framework for dynamic models", *Proc. of Seventh international Conference on 3D Web Technology*, February 2002, ACM Press, New York, NY, 103-109.

Kwang-Yong Kim et al., "Design and implementation of MPEG-4 authoring tool", Proc. of Fourth Annual Conference on Computational Intelligence and Multimedia Applications, ICCIMA 2001, Oct. 30-Nov 1., 2001, pages 348-351.

Mukherjee et al., "U-P2P: a peer-to-peer system for description and discovery of resource-sharing communities", Proc. of 22nd International Conference on Distributed Computing Systems Workshops, 2002, pages 701–705.

Puri et al., "MPEG-4: an object-based multimedia coding standard supporting mobile applications", The Journel of *Mob. Netw. Appl.* Vol. 3, number 1 (Jun. 1998), pages 5-32.

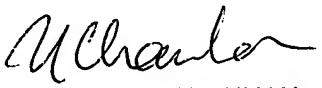
Widener et al., "Open metadata formats: efficient XML-based communication for heterogeneous distributed systems", 21st International Conference on Distributed Computing Systems, 16-19 April 2001, pages 739-742.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta Prendergast whose telephone number is (571) 272-7647. The examiner can normally be reached on M-F 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RP 2/22/2006



ULKA CHAUHAN
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